

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Currently Amended) An air control system for controlling both vent air and combustion air, comprising:

a pressure sensor, wherein said pressure sensor detects an environmental pressure characteristic of an enclosed environment and wherein said pressure sensor produces a signal representative of the detected environmental characteristic;

a single controller, wherein said single controller receives said signal and wherein said single controller utilizes said signal to determine if the detected environmental pressure characteristic is within a desired operating range, and wherein upon said detected environmental pressure characteristic being outside said desired operating range said single controller produces both a first output signal and a second output signal;

a vent air actuator, wherein said vent air actuator receives said first output signal from said single controller and responds thereto by operating to adjust said environmental pressure characteristic in pursuit of said desired operating range; and

a combustion air actuator, wherein said combustion air actuator receives said second output signal from said single controller and responds thereto by operating to

adjust said environmental pressure characteristic in pursuit of said desired operating range.

2. (Currently Amended) The air control system of claim 1, further comprising a plurality of appliances, wherein the operation of said plurality of appliances affects said environmental pressure characteristic, and wherein said single controller individually interfaces with each of said plurality of appliances to individually control the operation of each of said plurality of appliances.

3. (Canceled)

4. (Original) The air control system of claim 1, wherein said single controller includes an interface for communicating with an external electronic management system.

5. (Currently Amended) The air control system of claim 11, wherein said single controller includes memory for retaining historical data regarding operation of said pressure sensor, said vent air actuator or said combustion air actuator.

6. (Original) The air control system of claim 1, wherein said vent air actuator is selected from a group consisting of: a variable speed fan, a fixed speed fan and modulating damper, a variable speed fan and modulating damper, and a modulating damper.

7. (Original) The air control system of claim 1, wherein said combustion air actuator is selected from a group consisting of: a variable speed fan, a fixed speed fan and modulating damper, a variable speed fan and modulating damper, and a modulating damper.
8. (Original) The air control system of claim 1, wherein said system includes a mechanical override safety switch.
9. (Currently Amended) A method for controlling both vent air and combustion air in an enclosed environment, the method comprising the steps of:
  - sensing an environmental pressure characteristic of said enclosed environment;
  - producing a signal representative of the sensed environmental pressure characteristic;
  - receiving said signal via a single controller;
  - determining with said single controller whether said signal is within a desired operating range;
  - producing with said single controller a vent air output signal and a combustion air output signal upon determining said signal has fallen outside said desired operating range; and
  - adjusting said environmental pressure characteristic of said enclosed environment in pursuit of said desired operating range and in accordance with said vent air output signal and said combustion air output signal.

10. (Currently Amended) The method of claim 9, further comprising the step of interfacing said single controller to a plurality of appliances and individually controlling the operation of each of said plurality of appliances with said single controller to affect said environmental pressure characteristic of said enclosed environment.

11. (Canceled)

12. (Original) The method of claim 9, further comprising the step of communicating, via said single controller, with an external electronic management system.

13. (Original) The method of claim 9, further comprising the step of retaining historical data regarding said steps of sensing and adjusting.

14. (Original) The method of claim 9, wherein said step of adjusting is performed by: a variable speed fan, the combination of a fixed speed fan and modulating damper, the combination of a variable speed fan and modulating damper, or a modulating damper.

15. (Currently Amended) An air control system, comprising:

a sensor, wherein said sensor detects an environmental characteristic of an enclosed environment and wherein said sensor produces a signal representative of the detected environmental characteristic;

a plurality of appliances, wherein the operation of at least one of said plurality of appliances affects said environmental characteristic;

a single controller, wherein said single controller individually interfaces with and monitors each of said plurality of appliances in order to individually control the operation of each of said plurality of appliances, wherein said single controller receives said signal, and wherein said single controller utilizes said first output signal to determine if the detected environmental characteristic is within a desired operating range, and wherein upon said detected environmental characteristic being outside said desired operating range said single controller produces:

a vent air output signal to a vent air actuator, wherein said vent air actuator receives said vent air output signal from said single controller and responds thereto by operating to adjust said environmental characteristic in pursuit of said desired operating range;

a combustion air output signal to a combustion air actuator, wherein said combustion air actuator receives said combustion air output signal from said single controller and responds thereto by operating to adjust said environmental characteristic in pursuit of said desired operating range; or

both a vent air output signal to a vent air actuator and a combustion air output signal to a combustion air actuator, wherein said vent air actuator receives said vent air output signal from said single controller and responds thereto by operating to adjust said environmental characteristic in pursuit of said desired operating range, and wherein said combustion air actuator receives said

combustion air output signal from said single controller and responds thereto by operating to adjust said environmental characteristic in pursuit of said desired operating range.

16. (Original) The air control system of claim 15, wherein said sensor is selected from a group consisting of: a pressure sensor, a temperature sensor, a humidity sensor, a particulate sensor, and a density sensor.

17. (Original) The air control system of claim 15, wherein said single controller includes an interface for communicating with an external electronic management system.

18. (Original) The air control system of claim 15, wherein said single controller includes memory for retaining historical data regarding operation of said sensor, said vent air actuator or said combustion air actuator.

19. (Original) The air control system of claim 15, wherein said vent air actuator is selected from a group consisting of: a variable speed fan, a fixed speed fan and modulating damper, a variable speed fan and modulating damper, and a modulating damper.

20. (Original) The air control system of claim 15, wherein said combustion air actuator is selected from a group consisting of: a variable speed fan, a fixed speed fan and modulating damper, a variable speed fan and modulating damper, and a modulating damper.

21. (Original) The air control system of claim 15, wherein said system includes a mechanical override safety switch.

22. (Currently Amended) A method for controlling air flow in an enclosed environment, the method comprising the steps of:

sensing an environmental characteristic of said enclosed environment;

producing a signal representative of the sensed environmental characteristic;

receiving said signal via a single controller;

determining with said single controller whether said signal is within a desired operating range;

interfacing said single controller to a plurality of appliances and individually monitoring each of said plurality of appliances;

individually controlling the operation of each of said plurality of appliances with said single controller based upon said monitoring to affect said environmental characteristic of said enclosed environment<sup>[[.]]</sup> ; and

producing with said single controller an output signal selected from the following:

a vent air output signal upon determining said signal has fallen outside said desired operating range;

a combustion air output signal upon determining said signal has fallen outside said desired operating range; or

both a vent air output signal and a combustion air output signal upon determining said signal has fallen outside said desired operating range; and

adjusting said environmental characteristic of said enclosed environment in pursuit of said desired operating range and in accordance with said output signal.

23. (Original) The method of claim 22, wherein said step of sensing is performed with a sensor selected from a group consisting of: a pressure sensor, a temperature sensor, a humidity sensor, a particulate sensor, and a density sensor.

24. (Original) The method of claim 22, further comprising the step of communicating, via said single controller, with an external electronic management system.

25. (Original) The method of claim 22, further comprising the step of retaining historical data regarding said steps of sensing and adjusting.

26. (Original) The method of claim 22, wherein said step of adjusting is performed by: a variable speed fan, the combination of a fixed speed fan and modulating damper, the combination of a variable speed fan and modulating damper, or a modulating damper.



AMENDMENTS TO THE DRAWINGS

Fig. 1 has been amended to include item numbers 10 and 16.